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# CALIFORNIA JOURNAL OF EDUCATIONAL RESEARCH

## EDUCATION READING ROOM IN THIS ISSUE

- DOCTORAL DISSERTATIONS IN EDUCATION, 1954-55
- Educational Opportunities for Gifted Children in California
- Q Methodology: An Application
- Changes Under Annual Promotion
- Curricular Areas and Grade Placement
- Transfer Effects in Spelling
- Editorial: Still More Problems!
- Book Reviews

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# CALIFORNIA JOURNAL OF EDUCATIONAL RESEARCH

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## THE EDITORS SAY:

### Still More Problems for Educational Researchers

On September 30 and October 1, 1955, the Governor's Conference on Education was held in Sacramento. Although not as well attended by laymen as some had hoped, the Conference personnel was composed of a majority of non-educators. The primary purpose of the Conference was to analyze the problems confronting American education at the present time and to review the possible solutions. This was, of course, to be done with specific reference to California conditions. There was almost unanimous agreement that the Conference did a very good job of accomplishing this major goal.

The most impressive aspects of the Conference from the point of view of a worker in educational research was the tremendous amount of information of a type amenable to research procedures which was used. Much of it was used in the form of hearsay and unconfirmed opinion; but a large amount also represented fact solidly grounded on observation and experiment. No aspect of education appeared to be lacking in the need for further sound information. Some of the areas in which uncertainty as to factual information was most noticeable should prove of interest to researchers. In many cases the uncertainty emphasizes the need for wider diffusion of known research findings; in other cases it shows where additional study is needed.

The greatest certainty as to factual information was found in the field of finance. This is not, of course, surprising. It is somewhat disappointing, though, to note that even in this area considerable time had to be spent acquainting some professional educators as well as many laymen with the facts of the California situation. The least certainty appeared to be in the field of personnel relations. Here, opinion and assertions formed the basis of most of the discussion. Another area in which much less appeared to be known with accuracy than is desirable, was that concerning what schools should do. This area included not only curriculum, but the whole problem of the limits of the responsibility of the American public school.

It appears that in the next few years educational research in these areas will be particularly valuable in terms of immediate usefulness. This does not mean that more fundamental researches into psychological, methodological, and philosophical foundations will not be useful. After all, most other research depends upon findings in the fundamental aspects of education for its success. It will be fruitful, however, to devote more emphasis

*(Continued on Page 223)*

# Educational Opportunities for Gifted Children in California

LILLIE LEWIN BOWMAN

During the past thirty years, there has been a growing interest in the gifted child. Our knowledge of such children has widened significantly. We have explored their intellectual, their emotional, and their social characteristics. We know within limitations how they resemble their less able classmates and how they differ. When it comes to the point of providing educational programs for such children, however, we are groping about and asking the same questions educators were raising thirty years ago. Some of these still unsolved problems, which were listed among areas of "Needed Research on Gifted Children" in the February 1954 *American Psychologist*, follow:

1. What are the relative merits of the following administrative procedures for the gifted?
  - a. Keeping the child with his chronological age group and "enriching the curriculum."
  - b. Locating the individual close to his mental age level in school class with chronologically older children.
  - c. Retaining the child in his chronological age group for some subjects and advancing him in others.
  - d. Establishing special classes for children who have high rates of mental growth.
  - e. Utilizing no special administrative plan for the gifted.
2. What is the effect (emotional, social and intellectual) upon the gifted child of organizing his school work:
  - a. In terms of greater quantity of work of the same level of difficulty as that which he has been doing?
  - b. In terms of introducing additional new subject matter (both in classroom and extramural)?
  - c. In terms of advancing to higher levels of organization and abstraction

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in whatever experience is provided for him?

3. What is the relationship between ability and performance?
  - a. Are gifted children operating below their appropriate achievement level although not failing by the school's standards?
  - b. What personality correlates are there to such "concealed failure"?
  - c. What factors have contributed to such "concealed failure"?

During recent years an increasing amount of attention is being given to the teacher's distinctive role and the gifted child's personal relationships in home, school and community.

There is no question but that California is gifted child conscious. One has only to review for evidence the programs of the various educational meetings held during the past few years or the stream of mimeographed and printed material flowing from all corners of the State. There appears to be a sincere effort to discover these very superior children and to guide them into activities which will give them education and leadership opportunities commensurate with their abilities. It is the consensus that such children, properly guided, will furnish the scientists, engineers, moral leaders, statesmen, scholars and teachers needed in a complex and troubled world.

In May 1955, the Committee on the Study of the Gifted Child of the State Advisory Council on Educational Research made an effort to inventory the practices in effect in California. The purpose was to discover not only what was being done for our State's greatest source of intellectual wealth but to publicize promising practices in order to share them with various parts of the State where programs have not been developed: Data was sought on:

1. dates of organization,
2. levels at which programs were first organized,
3. levels at which programs are now in operation,
4. nature of the supervision of programs,
5. methods of identifying pupils,
6. cut-off points for pupils selected for special programs,
7. number and per cent of pupils identified,
8. number and per cent of pupils on special programs,
9. practices in use at various levels, and
10. printed and mimeographed material for distribution.

No effort was made to evaluate the practices. If a district reported that it maintained a program, it was included among those having programs, regardless of the scope or the limitations of the activities carried on.

The replies received referred to gifted, very able, talented, very superior and rapid learners. All of these terms and others have been used in referring to children of high intellectual promise. They are sometimes referred to as exceptional, but the term "genius" has almost disappeared from current literature in speaking of the children with which this survey was concerned.

## City School Programs

Twenty-four, or approximately one-third of the cities queried reported that they were maintaining a program. Among eight California cities having populations exceeding 100,000, five reported having established programs. Nineteen smaller cities having programs range in population from 99,000 down to 5,000, indicating that size of city is not a major factor in the establishment of programs for very rapid learners.

Of the cities responding,<sup>1</sup> the majority have organized their programs during the past five years, only three cities indicating that a program was organized prior to 1950. The tendency appears to be to begin the programs at elementary level. There are, however, four cities which have secondary programs but have no programs at elementary level.

*Administration of Programs:* The programs designed for gifted children are under the direction of both central office and field administrators, the school principal being mentioned most frequently. Others who are taking the responsibility for the programs are Assistant Superintendents, Curriculum Coordinators, Elementary and Secondary Supervisors, Consultants in Education, Research Assistants, Director of Special Services, Director of Research and Guidance, and School Psychologists. One city stated that a committee was in charge, and two did not report anyone in particular responsible.

## Methods of Identification

In all of the cities reporting, group intelligence and achievement tests are used in the screening of superior or gifted children. In all but three cities individual tests are used in degrees ranging from "some" to "extensively." The identification program covers all school levels in only five cities. Objective test results are supplemented by teachers' judgments in 21 of the 24 cities responding as a basis for identifying the gifted child. Among other screening devices listed were: interest inventories, child resource survey, special talents, school achievement record or "performance consistently high in any human endeavor."

Although the same screening devices are in general use in the majority of cities, there are wide differences in what constitutes a gifted or superior child. The difference is probably not one of definition but rather of the cut-off which is used to mark those who have been identified for special educational consideration. The cities studied ranged in cut-off point from three sigmas above the mean to the highest quartile, which in terms of percentages ranges from the highest .5 per cent to the highest 25 per cent.

<sup>1</sup> References to the individual communities and counties will be made in a forthcoming memorandum of the State Advisory Council on Educational Research to be available by December, 1955.

The problems to be met in groups so widely separated may have little in common. There are rare instances where the highest 25 per cent will qualify as superior students.

The fifteen cities which expressed the cut-off point in terms of intelligence quotient were distributed as follows: 120, 5 cities; 125, 3 cities; 130, 4 cities; 135, 3 cities.

### Extent of Programs

In the majority of cases a larger number of children were identified as gifted than were being given special educational consideration. This may be due to the fact that the programs are relatively new and provisions for special programs have not reached all deserving of them. Although a large percentage was reported as identified in a few cities, actual programs for gifted children reach from approximately the highest 1 to 4 per cent of the school population at any instructional level.

Of the larger cities, Long Beach reaches from 3.5 to 4.5 per cent of its school enrollment in the program for gifted children, while Los Angeles and San Francisco involve 1.7 per cent. Although this survey makes no attempt at evaluation, the programs in these three cities have unique features which might well be incorporated in any city program.

### Nature of Programs and Practices

Whenever the education of gifted or superior children is considered, the timeworn questions arise: To segregate or not segregate? To accelerate or not accelerate? To enrich in terms of widening the curriculum, or in terms of intensifying the offerings? When California's educators were asked to indicate the practices in effect for the gifted children in their schools we found every practice but complete segregation. Those reported are expressed in terms of frequency of mention in Table I, which follows:

TABLE I  
Types of Programs for Gifted and Superior Pupils  
In Twenty-Four California Cities, 1954-1955

Type of Organization	Elementary	Junior High	Senior High
Complete Segregation	0	0	0
Partial Segregation	5	9	7
No Segregation	9	7	6
Acceleration of Pupil	11	7	5
Acceleration of Curriculum	6	8	8
Enrichment Within Grade	16	12	12
Other Practices	5	5	5

In terms of frequency of mention, enrichment in the regular classroom appears to be the most popular administrative procedure. Many of the

schools enclosed printed or mimeographed materials describing their enrichment practices.

Acceleration of pupils or "skipping grades" appears to be more widely practiced at elementary than at secondary level. As students reach the higher secondary grades acceleration becomes less desirable because of the standard unit requirements. It is also less necessary at secondary level because of the wider curriculum offerings.

Acceleration of the curriculum is receiving increased attention. This practice also has many interpretations, but usually refers to the assignment of more advanced subject matter to the superior or gifted pupils within the class.

Among other practices mentioned were the enlistment of community committees in San Bernardino, special summer sessions in Riverside, and teacher and counselor sponsors in special fields as in San Francisco.

## County School Programs

In addition to the 24 city school programs for improving educational opportunities for gifted children, ten California counties have initiated programs assuring a wider coverage both geographically and numerically. The facts that these county administrators are gifted child minded, that they discuss the needs of superior children at their institutes and workshops, and that they assist the schools under their supervision in meeting the needs of such children are a safeguard to the isolated superior child in rural and suburban communities.

These are still relatively new and are substantially programs of aid and consultation to local school personnel. Services of the county testing and research offices are available for the use and interpretation of test data. The county office may be a resource for special materials or teaching aids.

San Diego County has produced a guidebook for those concerned with improving the educational opportunities of gifted children. It is a substantial document which has obtained statewide notice.

## Summary

In an optimistic frame of mind one might say that California has made a magnificent beginning on a very worth-while program. Thinking statistically and with pessimism, we are only doing a bit of surface scratching in our two and a half million school children, among which there are at least fifty thousand who have educational needs beyond those of their less able classmates. California can no longer be proud of the fact that we are doing well for a young and developing area. Now that the State exceeds all others in the number of school-age children we must face the fact that we thereby have more gifted pupils than any other state in the nation. California must do something for them.

## **Q Methodology**

### **An Application in Investigating Changes in Self and Ideal Self in a Mental Health Workshop**

ELI M. BOWER AND PETER J. TASHNOVIAN

Experiences aimed at helping individuals to re-orient their perceptions and to understand more of the psychodynamics of behavior can be found in most institutions of higher learning each summer. Is it possible to subject such short-time, intensive experiences to systematic, scientific study?

Several obvious problems present themselves in such an undertaking. Tests of information increment resulting from these experiences have been found to have little or no relationship to attitudinal change (8, 12). Standardized attitude scales employed in a "before and after" procedure may not be of sufficient sensitivity to detect the possibly slight degrees of change expected. In addition, the use of a standardized scale restricts the dimension of change which can be studied and increases the possibility of participants utilizing socially visible stereotypes where responses are of a yes-no dichotomy.

One study, however, reports use of a personality inventory in this type of evaluation with some success (13). Projective techniques given individually, before and after, involve for the usual workshop a corps of clinicians not usually available. Group presentation, in which workshop participants write responses to slides, adds additional problems of scoring and recording. Interviewing and other case history techniques are time consuming and unsuitable where one has but a limited amount of time.

It has been proposed that the difficulties involved in this evaluative problem can be circumscribed by focusing more closely on the behavior of the participants in real situations. Many suggest that the assessment

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of attitudinal or perceptual changes can only be made through an evaluation of the behavior of the participants back on the job. Undoubtedly, such follow-up investigations are an important and necessary step in a total evaluation. However, before that step is taken, it would be well to know what, if anything, has actually gone on in the workshop. Is there some methodology for demonstrating that changes do result? What are the characteristics of such changes? Do all participants show demonstrable change? What kind of behavioral changes can be expected as a result of the workshop?

## A Frame of Reference

New concepts in evaluation have been developed by recent experimentation on the nature of perception (7). The primary and perhaps most critical perceptual construct upon which human beings act is perception of self. Many studies (1, 8, 11, 14, 17) have shown a definite and relatively high relationship between acceptance and respect for self and acceptance and respect for others.

The self as perceived, however, is often seen to have aspects of an ideal or wanted self. The ideal self may be construed to contain the internalization of cultural standards mediated through parental expectations and demands. As such, it is possible that a large discrepancy between ideal or wanted self and actual self may indicate self-dissatisfaction; this may be operationally visible in the individual as an increase in tension or anxiety. It would be hypothesized that a healthy relationship would be found in an individual who can mediate, with awareness and comfort, between the goals of the wanted self and the reality testing of the conceived self. Changes then in self and ideal-self concepts and their relationships were decided upon as significant constructs upon which this evaluation might focus.

## Methodology

Utilizing the concept of self and ideal-self in a phenomenological frame of reference, the essential procedure of the evaluation was found in "Q" methodology (15, 16). Essentially this is a method for correlating self-descriptions from an internal frame of reference, employing intra-individual differences of significance or value as the criteria of changed perception.

Briefly, "Q" methodology involves the development of a universe of items from which are randomly sampled a number of items, in this case 76 items. These are then placed on cards for sorting. Individuals were asked to sort the cards as follows:

Sort 1: You have 76 cards, each of which contains a statement descriptive of behavior. Which statements do you think would be most descrip-

tive of you? Begin by making two piles of 38 cards each so that the pile on the left will be more descriptive or characteristic of *you*, and the pile on the right least descriptive or characteristic of *you*. After you have done this, further subdivide each pile in this manner so that you end up with eight piles containing from left to right, 1, 5, 12, 20, 20, 12, 5, 1 items respectively. Record these choices on the form provided.

Sort 2: Will you now reassemble your cards and shuffle them well. Now I would like you to sort these cards once again, but this time in response to the following query: Which statements would be most descriptive or characteristic of *an ideal teacher*, as you conceive him or her. Record these choices on the form provided.

Sortings were done by each individual the first and last day of the workshop. Pearson Product-moment r's were calculated from the formula  $r_{1,2} = \frac{1 - \sum d^2}{2N\sigma^2}$ . (10, P102). The relationships of the r's can be diagrammed as shown in Fig. 1.

Three separate groups participated in the sortings: (A) A mental Health Institute subvented by National Mental Health Act Funds, ( $N=75$ ), (B) A University Guidance Workshop group, ( $N=28$ ), (C) A class in Research Methods, ( $N=34$ ). All were presented with the sorting tasks before and after approximately a two-week period. Group C students were all enrolled in non-psychological courses during a summer session, while the other groups met for 6 to 8 hours each day as a workshop. The Mental Health Institute operated largely in small group sessions led by professional mental health leaders. The University Guidance course was aimed primarily at preparing guidance counselors for work in the schools; it was only indirectly aimed at changes in perception of self.

## Hypotheses

The following hypotheses were posed:

1. The experimental workshop experience (A) will effect greater changes in self-concept than the other two groups (B, C).

Tests:  $Ar_2 < Br_2$

$Ar_2 < Cr_2$

(In Q-sort correlations, the less the correlation, the greater the changes.)

2. Self-concept will change more than self-ideal.

Test:  $Ar_2 < Ar_5$

3. Self-concept and self-ideal, after workshop, will be more closely related than before workshop.

Test:  $Ar_1 < Ar_6$

## Relationships among Four Q Sorts for Groups A, B, and C

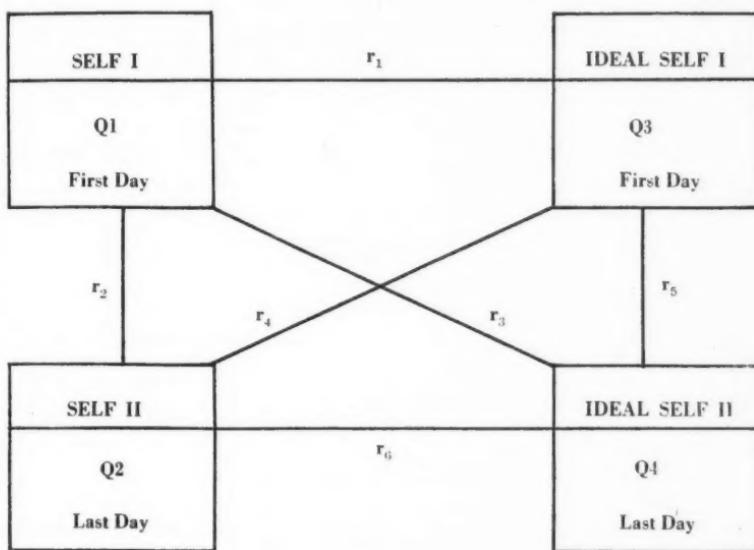


FIGURE 1

4. Changes in self and ideal-self in the mental health workshop will show qualitative and quantitative shifts toward increased "perceptual-centered" values. Perceptually-centered values would be deemed to exist to the extent a subject is willing to perceive self and others as mediators of experience and value rather than existing in a world where value and significance are inherent in objects or behaviors.

**Test Qualitative analysis of items (cards) showing greatest movement, direction of such movements, and relationship to quantitative data.**

## Results

The composite or average  $r$ 's for Group A (Mental Health Institute), Group B (University group), and Group C (Research Methods Class) are given in Table I. The  $r$ 's represented in Table I were calculated by tran-

scribing each individual *r* to the corresponding *Z* score, using Fisher's *Z* table (9, P 364) averaging and reconverting to a group *r*.

TABLE I  
Correlations between Self and Ideal-Self

	<i>Self I and Ideal- Self I</i>	<i>Self I and Self II</i>	<i>Self I and Ideal- Self II</i>	<i>Ideal- Self I and Self II</i>	<i>Ideal- Self I and Ideal- Self II</i>	<i>Self II and Ideal- Self II</i>
<b>Group A</b> <i>N</i> = 75	77	64	62	63	65	86
<b>Group B</b> <i>N</i> = 28	67	72	65	65	71	77
<b>Group C</b> <i>N</i> = 34	75	74	65	66	74	77

Re-examining the four hypotheses stated above, first referring to Table I, it is noted that:

1. Group A did show the greatest change in self.
2. Self did not appear to have changed more than ideal-self.
3. Self and ideal-self for Group A and B became more congruent.
4. In the analysis of the qualitative changes, individual items showing the greatest movement or shift in column position were sought.

It appears that the movement in the self-sorts were in general toward increased "perceptual-centeredness."

## Summary and Conclusions

A primary objective of this study was to test the sensitivity of an evaluative procedure to three differing experiences. The results indicate that this methodology has differential sensitivity both to individual differences within groups and among groups themselves. Can these now be related to behavioral changes in the individual's job performance? Next steps would indicate the necessity for follow-up studies extending vertically or horizontally with work of Eberman (4, 5) and Bills (2, 3) especially as they relate "Q" sort changes to observable behavior changes.

The results further suggest that this methodology holds promise in attempting the difficult excursion behind the diaphanous but often impenetrable curtain of the "self-realization" objectives of education. The results

are hopeful signs that what we say we do in workshops, courses, or institutes may indeed be subjected to systematic examination.

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## Changes Under Annual Promotion

MERLE HUGH ELLIOTT

In the fall of 1950 the East Bay Research Council was requested to make a study of annual and semi-annual plans of school organization. A subcommittee reviewed the literature, corresponded with school districts which had changed to the annual plan, and endeavored to gather data.

The report of the subcommittee contained the following statements:

"The literature on this topic is unsatisfactory to the research-minded for a number of reasons:

1. The literature contains more opinion than facts or results of experimentation. School systems generally do not make careful studies of the effects of a change or reorganization.

2. Many of the arguments presented on both sides are irrelevant. The arguments or facts presented deal with aspects of education which are more closely related to the existing philosophy or the policy of the school system than to the manner in which the schools are organized. Thus the promotion policy (i.e., age-grade relationships, acceleration, retardation, etc.) may be satisfactory or unsatisfactory under either plan of organization. In the same way schools can and do have flexible programs and are able to make adjustments for individual differences with either annual or semi-annual organization.

3. Parallel trends are mistaken for causation. Thus several decades go there were trends toward semi-annual organization and toward reduction of amount of retardation. The alert or progressive school system tended to change to semi-annual organization and to reduce retardation. There was then more retardation under the annual organization. It does not follow that the annual organization causes retardation. In fact there is some evidence that at present the amount of retardation is greater under the semi-annual plan.

4. Identical (and unsubstantiated) arguments are presented by both sides. Thus it has been claimed that each plan is less expensive, that each allows for more complete study and guidance of children, that scholarship or achievement is better under each plan, etc."

The subcommittee endeavored to gather data which would indicate how the semi-annual plan of organization was working out in practice. Since Oakland has in the meantime adopted a modified<sup>1</sup> annual promotion

<sup>1</sup> The modified plan adopted by the Oakland Board of Education on November 20, 1951, permits midyear entrance of pupils in kindergarten and first grade. Pupils entering at midyear must be adjusted to the annual plan by the end of the second grade. In the transition, midyear classes at the 6th grade and above were allowed to continue on through the grades. The last midyear class will be graduated from junior high school in January, 1956, and from senior high school in January, 1959.

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plan, some of the data may now serve as reference points for comparisons with later data.

Under annual promotion there has been a change in grade composition of elementary classrooms. In the spring of 1951 there were in Oakland 436 classrooms with pupils from grades 3 to 6. Their composition was as follows:

Single half grade in room.....	137 or 31.4%
Two half grades in room.....	254 or 58.3%
Three half grades in room.....	44 or 10.1%
Four half grades in room.....	1 or 0.2%

In the spring of 1955 under annual promotion there were 500 elementary classrooms grades 3 to 6. Their composition was as follows:

Single grade in room.....	402 or 80.4%
Two grades in room.....	98 or 19.6%

Under the semi-annual plan the usual situation was a classroom group composed of two or more half grades. Under the annual plan in Oakland the usual situation is a classroom group of children in the same grade.

One of the claims for annual promotion is that it provides for greater continuity of pupil-teacher relationships. There is evidence that under the semi-annual plan a pupil may have an excessive number of different teachers and that classroom groups are subjected to a great many reorganizations.

In the spring of 1950 a study was made of the number of teachers pupils had in going from kindergarten through the sixth grade. The records of seventh grade pupils in three junior high schools were tabulated. Only the 740 pupils who had been in Oakland schools continuously were included. The average number of teachers for each pupil in grades kindergarten through 6 was 8.10. There were 299 or 40.4 per cent of the pupils who had 9 or more teachers. It should be noted that under existing policy a pupil should theoretically have only four teachers; one in kindergarten, one in grades one and two, one in grades three and four, and one in grades five and six.

In the spring of 1955 a comparable study of 773 seventh grade pupils in the same three junior high schools was made. The average number of teachers for a pupil going through grades kindergarten to 6 had been reduced to 7.17. This reduction of about one teacher occurred even though under the modified plan annual promotion is in effect only in grades three to six. There were only 161 or 20.8 per cent of the pupils who had 9 or more teachers.

These two bits of evidence are at least indicative of possible changes under the annual plan of promotion. However, they are not presented here for their intrinsic value but as part of a plea for systematic gathering and reporting of data by school systems before and after changes are made. Future committees should be able to find more data in the literature than were available to the committee quoted earlier in this report.

## Relation of the "K" Scale of the MMPI to the Teaching Personality

J. C. GOWAN

The *K* or suppressor variable scale of the MMPI<sup>1</sup> was introduced by Meehl and Hathaway (6) in 1946 as a measure of "defensiveness." The *K* score is added to the *Pt* and *Sc* scales, while various fractions are added for *Hs*, *Pd* and *Ma* to correct for a supposed set which results in the more frequent marking of normal and favorable responses. As originally designed, therefore, it consisted of a control of test-taking attitude, and hence was considered to be a validating scale.

Since its introduction, however, investigators in the field have found *K* to have other interesting properties, some of them not apparent from the manner of its development. Because these isolated researches when pieced together form a pattern of considerable importance, it is germane to review them briefly.

Gough (3) in 1950 indicated that *K* was negatively correlated with faking, and that college students tended toward elevated scores.

Wheeler, Little and Lehner (10) in 1951 presented a factor analysis of the MMPI in which they interpreted *K* as representing ego defense.

Tyler and Michaelis (9) in 1953 found that the *K* scale added little to the interpretation of the scores of college women. They also noted high negative correlations between *K* and scales of the psychotic triad, an observation also made by Meehl and by Wheeler.

Sweetland and Quay (7) in 1953 did a study of hypnotic dreams from which they concluded that *K* was associated with "(a) social security, (b) emotional adjustment, (c) a tendency to symbolize hypnotic dreams, (d) being a college student, (e) nonfaked profiles, (f) the opposite of what is measured by *Pt* and *Sc* scales, and (g) nonextrapunitiveness." Summarizing, they remarked that "*K* appeared to measure healthy emotional adjustment and personality integration." (7: 315-316)

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<sup>1</sup> Minnesota Multiphasic Personality Inventory.

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Tanner (8) in 1954 contrasted test scores of potentially strong and potentially weak teaching candidates. He found *K* the only scale out of a large battery which discriminated significantly between the groups for both men and women.

Cottle and Lewis (2) in 1954 studied male counselor responses on the MMPI and found that counselors differed from male students most significantly by virtue of a higher *K* score. They also found that the *K* score "operated to cancel a number of statistically significant differences in the mean scores without *K* correction." They concluded that the result "could be a statistical artifact or a true correction for defensiveness." (2:30) It seems possible that it could also have been due to the fact that the counselors, being on the whole more empathic than the students, revealed this fact by a higher *K* score.

Cook and Medley (1) in 1955 studied the relationship between the MMPI and the Minnesota Teacher Attitude Inventory. They analyzed MMPI scores using criterion groups of high and low MTAI scores. Again, a highly significant difference was noted in the *K* scale. Its *t*-ratio was significant at the one per cent level, the highest variance among all the MMPI scales. Since high MTAI scores are held to indicate permissiveness, good pupil rapport and the like, the *K* factor emerges as an important determinant in the study of teacher personality, as the authors are quick to point up. They say:

Concluding that this set factor is discriminating high and low rapport groups indicates either that this is a contamination in the MTAI when used as a criterion of teacher-pupil rapport, or that we are actually studying two groups of teachers with different attitudes towards pupils, or that this difference in set is a real difference between the two types of teachers as important as any other. (1: 127-128)

These findings lead to the premise of this paper, which is that each of these researchers, justifiably cautious in his conclusions because the *K* scale was devised as a control of test-taking attitude, has contented himself with claims which are over-conservative with regard to the meaning and significance of *K*, and has therefore missed the full implication of the *K* scale. It seems evident that *K* represents much more than a validating key, and that high scores on it have intrinsic significance for positive personality integration in general and for teaching prognosis in particular, over and above the test-set factor. To the foregoing resume of research supporting this view may be added the following pertinent investigations in which the writer participated.

The phenomenon of high *K* in the MMPI's of education students was noted (5) in connection with a large sampling of UCLA teaching candidates. Out of 1730 cases of which 661 were men and 1069 were women, there was a raw-score mean for *K* of 18.7 (as against 13 for the average adult), with a standard deviation of 4.4 and a standard error of the mean

of .11. There was virtually no difference between the sexes in these statistics. The corresponding *t*-score mean was 62, the highest for the entire battery, which led to the cautious statement: "Both men and women have high *K* scores, indicating defensiveness: perhaps this is a teacher characteristic, and perhaps a function of the testing situation." (5:672)

Next a teacher prognosis scale developed from the MMPI and reported elsewhere (4) turned out upon validation to have its highest correlation with *K* (an *r* of .64 with a standard error of .05), despite the fact that there was an overlap of only two items.

Third, a compilation of intercorrelations and resultant factor analyses of tests given teaching candidates and reported elsewhere<sup>2</sup> turned up some interesting material. Some of this is detailed in Table I, consisting of the correlations of *K* with some sixty other variables. Leaving out the contaminated MMPI scales, *K* correlated .4 or higher with Lie score and responsibility on the MMPI, with good impression, tolerance and honor point ratio on the California Psychological Inventory, with emotional stability, objectivity, friendliness and good personal relations on the Guilford-Zimmerman, and with the teacher prognosis scale noted above. Negative correlations of the same order were noted with social introversion on the MMPI, and with dissimulation and impulsivity on the California Psychological Inventory.

In the consequent factor analyses one of the factors turned out to have high loadings on *K*. This factor had total loadings as follows: ACE total, .65; MMPI *K*, .75; MMPI *Pt*, -.67; CPI good impression, .75; CPI flexibility, .02; CPI status, .55; CPI poise, .42; G-Z general energy, .35; G-Z friendliness, .73; and the teacher prognosis scale, .99. The factor was named general teaching adjustment but it fits well the description of *K* given by Sweetland above. The loadings of *K* on the factors were closely approximated by G-Z friendliness: the two vectors in three dimensional factor space were less than ten degrees apart, with more than half of the variance of each accounted for. Other nearby vectors included good personal relations, responsibility and academic achievement.

These facts argue for a picture of the high *K* individual as tending to be responsible, conscientious, conforming, controlled and friendly, with a strong ego and good performance in interpersonal relations. He thinks well of others, as he tends to see the best in everyone, himself included. Rather than pointing to an absence of basic problems, this delineation indicates some degree of social anxiety overlaid with a reaction formation in which emphasis is directed towards control of self and adaptation to the needs and demands of others.

<sup>2</sup> Gowan, J. C., and M. S. Gowan, "Intercorrelations and Factor Analyses of Tests Given Teaching Candidates." Accepted for publication in the *Journal of Experimental Education*.

TABLE I  
Correlations of K with Various Other Test Scales<sup>1</sup>

<i>Test and Scale</i>	<i>r</i>	<i>Test and Scale</i>	<i>r</i>
Cooperative English Vocabulary	-.02	California Psychological Inventory	
Speed	.00	Good Impression	.57
Level	.02	Dissimilation	-.53
Mechanics	.06	Responsibility	.31
Stanford Arithmetic	.08	Tolerance	.51
American Council Psychological Q	.04	Flexibility	.34
L	.02	Status	.26
Total	.01	Dominance	-.03
Allport-Vernon Study of Values Theoretical	-.02	Social Participation	.18
Economic	-.05	Femininity	-.01
Aesthetic	-.09	Delinquency	.18
Social	.09	Intellectual Efficiency	.34
Political	-.03	Academic Achievement	.48
Religious	.06	Honor Point Ratio	.50
Minnesota Multiphasic Inventory L	.46	Psychologist Interests	.29
F	-.26	Neurodermatitis	-.15
Hs (K added)	.57	Poise	.17
D	-.10	Impulsivity	-.46
Hy	.51	Guilford-Zimmerman General Energy	-.07
Pd (K added)	.39	Restraint	-.01
Pa	.23	Ascendance	.04
Pt (K added)	.18	Sociability	.27
Sc (K added)	.47	Emotional Stability	.46
Ma	-.16	Objectivity	.51
Status	.22	Friendliness	.42
Dominance	.31	Thoughtfulness	-.30
Responsibility	.52	Personal Relations	.44
Social Introversion	-.44	Masculinity	.05
Gowan Teacher Prognosis Scale for the MMPI .64			

In view of the foregoing evidence, the following views regarding the significance of K seem tenable:

1. K represents more than a test-taking attitude.
2. High K scores tend to distinguish individuals who are well-adjusted, responsible, controlled, possessed of security and status, characterized by a well-functioning ego, friendly and nonextrapunitive.

<sup>1</sup> Population: UCLA teaching candidates. N for the first column is 1700, giving a standard error of *r* of .03 or less. N for the second column is 241, giving a standard error of .07 or less.

3. Such persons are rarely found with elevations in the psychotic triad: *K* essentially means the opposite of these.
4. High *K* persons tend to be empathic, and to make good counselors and teachers.
5. Moderate ( $t=65$ ) elevation of *K*, characteristic of college students in general and teaching candidates in particular, is no indication of an attempt to "fake good."
6. This sign is a valid and widely reported test indicator of teaching potential.

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The following article which has been accepted for publication will also prove useful:

Gowan, J. C. and Gowan, M. S. "Intercorrelations and Factor Analyses of Tests Given Teaching Candidates." To appear in the *Journal of Experimental Education*.

# **Relative Importance of Curricular Areas for Grade Placement Deviations in Grade V**

JACK A. HOLMES AND CARMEN J. FINLEY

While the literature reports many investigations which seek to establish a relationship between success in various subject matter areas and I.Q., the present writers have not been able to find a single investigation which seeks to establish relationships between over- and under-age grade placements and success in the various subject matter areas.

At the elementary school level, what is the relative influence of success in the various curriculum areas on over-ageness and under-ageness in the grade placement of pupils?

*A priori*, it would seem unlikely that success in all subjects at the elementary level is of equal importance in establishing the grade placement of a pupil in any given grade. If this rationale is correct, then the following hypothesis seems tenable: A relationship will be found between the grade placement deviation of elementary pupils and a hierarchy of relative successes in the various subject matter areas for each grade level and for each sex. It is the *specific purpose* of this investigation to test that part of this general hypothesis pertinent to Grade V.

## **Methodology and Tests**

The population under investigation consisted of fifth grade pupils enrolled in 68 elementary school districts in Sonoma County in the fall of 1952. The samples consist of 515 boys and 464 girls representatively drawn from the above population.

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The criterion, Grade Placement Deviation (GPD), was determined by computing the difference between each child's Actual Grade Placement (AGP = 5.10) and his Chronological Grade Placement (CGP). That is,

$$\text{GPD} = \text{AGP} - \text{CGP} + K$$

where K is a constant (5.0) inserted into the equation in order to give all values a positive sign.

Table I depicts the frequency distributions of the actual grade placement deviations for each sex.

**TABLE I**  
**Frequency Distributions of Actual Grade Placement Deviations**

	GPD-Intervals	Boys	Girls
(Under-aged, Accelerated)	1.1 + 1.6	10	10
↑	.5 + 1.0	59	99
Normal	— .1 + .4	237	231
↓	— .7 — .2	118	96
(Over-aged, Retarded)	— 1.3 — .8	74	18
↑	— 1.9 — 1.4	8	6
↓	— 2.5 — 2.0	6	3
↑	— 3.1 — 2.6	2	1
↓	— 3.7 — 3.2	0	0
↑	— 4.3 — 3.8	1	0
	N	515	464

Inspection indicates that the boys in the 5th grade ranged from an overageness of 4.0 years to an under-ageness of 1.4 years. The girls, on the other hand, ranged from an over-ageness of 2.6 years to an under-ageness of 1.6 years. In other words, while the boys should have been, according to their chronological ages, distributed from grades 3.7 to 9.1, and the girls should have been distributed from grades 3.5 to 7.7, the whole group was actually in grade 5.1.

Presumably (unrealistically) all children in Grade V would know approximately the same amount of material for each subject area, and

therefore a correlation between knowledge in any one subject area and grade placement would be zero. However, we know (realistically) that there exist individual differences in the amount of knowledge the children have in any subject, even though they are all in the same grade.

1. The question, then, is: "What is the relation between grade placement deviation and amount of knowledge? That is, do older, but retarded students, know more (a negative correlation), or do the younger but accelerated students know more (a positive correlation)?"

2. The second general question, then, is: "If certain students are held back, and certain students are accelerated, what are the subject matter successes that seem to be most closely related to this retardation and acceleration?"

The independent variables were assayed on the *California Achievement Test Battery*, Elementary Form DD. This battery was administered to 979 fifth grade children during the first three months of the school year as a part of the general county testing program.<sup>1</sup>

The subtests of the *California Achievement Test Battery* are reading vocabulary, reading comprehension, arithmetic reasoning, arithmetic fundamentals, mechanics of grammar, and spelling ability. The manual reports

Table II  
Reliabilities of Subtests

<i>Subtest</i>	<i>Manual r</i>
Reading Vocabulary	.88
Reading Comprehension	.93
Arithmetic Reasoning	.89
Arithmetic Fundamentals	.96
Mechanics of Grammar	.90
Spelling	.89

that the reliabilities for Grade V of these subtests range from .88 to .96. Table II presents the specific reliabilities for each of the subtests.

<sup>1</sup> The authors wish to thank Charles W. Wiggins, recently retired Superintendent of Schools, Sonoma County, and DeForest Hamilton, present Superintendent; also Verdun Trione, Coordinator of Guidance, and the teachers of Sonoma County for their cooperation in making these data available.

## Results

Table III presents the matrix of intercorrelations found among the variables for the boys.

**TABLE III**  
**Intercorrelations Obtained on 515 Boys in Grade V**

<i>Variable</i>	<i>Intercorrelations</i>						
	<i>1</i> <i>GPD</i>	<i>2</i> <i>RV</i>	<i>3</i> <i>RC</i>	<i>4</i> <i>AR</i>	<i>5</i> <i>AF</i>	<i>6</i> <i>MG</i>	<i>7</i> <i>SP</i>
1. Grade Placement Dev. (GPD)	.252	.237	.239	.115	.242	.241	
2. Reading Vocabulary (RV)		.745	.686	.449	.628	.615	
3. Reading Comprehension (RC)			.692	.462	.633	.634	
4. Arithmetic Reasoning (AR)				.580	.631	.613	
5. Arithmetic Fundamentals (AF)					.425	.437	
6. Mechanics of Grammar (MG)						.606	
7. Spelling (SP)							

It is of interest to note that the criterion, Grade Placement Deviation (GPD), correlates highest with reading vocabulary ( $r = .252$ ) and lowest with arithmetic fundamentals ( $r = .115$ ) for boys in Grade V. The highest intercorrelation, an  $r$  of .745, is between reading vocabulary and reading comprehension. As one might expect, the lowest intercorrelation between the independent variables is between arithmetic fundamentals and mechanics of grammar ( $r = .425$ ).

The matrix in Table III was submitted to the multivariate analysis known as the Wherry-Doolittle Test Selection Method. Table IV presents the necessary data and indicates the cumulative rise in the multiple correlation,  $\bar{R}$ , as each new variable is selected in accordance with its independent contribution to the variance of the criterion, GPD.

Perusal of Table IV indicates that when *spelling* and *mechanics of grammar* are added to *reading vocabulary*, the multiple  $\bar{R}$  rises to .275, significant at the 1 per cent level.

Perhaps the most interesting observation of the triad of variables which support this multiple correlation is that they all deal with linguistic abilities. Although this part of the study deals only with boys, who are generally conceded to be relatively weak in this area and strong in arithmetic, no

variable-representative of quantitative abilities (i.e., arithmetic reasoning, arithmetic fundamentals) is recognized.

TABLE IV  
Work Sheet for Calculating the Multiple Correlation for Grade V Boys

$m$	$\frac{V^2}{m}$	$K^2$	$\frac{N-1}{N-m-1}$	$\frac{2}{K}$	$\frac{2}{R}$	$\bar{R}$	Test
0.	—	1.000	(N=515)	—	—	—	—
1.	.0635	.9365	1.002	.9384	.0616	.248	RV
2.	.0119	.9246	1.004	.9283	.0717	.268	SP
3.	.0055	.9191	1.006	.9246	.0754	.275	MG

Table V presents the matrix of intercorrelations found among the variables for the girls.

TABLE V  
Intercorrelations Obtained on 464 Girls in Grade V

Variable	Intercorrelations						
	1 GPD	2 RV	3 RC	4 AR	5 AF	6 MG	7 SP
1. Grade Placement Dev. (GPD)	.157	.115	.140	.032	.093	.173	
2. Reading Vocabulary (RV)		.734	.674	.460	.658	.542	
3. Reading Comprehension (RC)			.728	.532	.683	.559	
4. Arithmetic Reasoning (AR)				.608	.691	.586	
5. Arithmetic Fundamentals (AF)					.515	.446	
6. Mechanics of Grammar (MG)						.571	
7. Spelling (SP)							

It is of interest to note that for girls the criterion, Grade Placement Deviation (GPD) correlates highest with spelling ( $r = .173$ ) and lowest with arithmetic fundamentals ( $r = .032$ ). The highest intercorrelation in the matrix gives an  $r$  of .734 and, as for the boys, is between reading vocabulary and reading comprehension. The lowest intercorrelation between any of the independent variables is .446, and this expresses the relationship between arithmetic fundamentals and spelling.

A work sheet for the girls, similar to that given for the boys in Table IV, indicated that when *reading vocabulary* and *arithmetic fundamentals* were added to *spelling*, the total multiple correlation gave an  $\bar{R}$  of .190, significant at the 1 per cent level.

## Summary and Conclusions

A sample of 515 boys and 464 girls in the fifth grade were given a battery of six achievement tests in the areas of reading vocabulary, reading comprehension, arithmetic reasoning, arithmetic fundamentals, mechanics of grammar, and spelling. Their grade placement deviations were calculated in order that their over-ageness and under-ageness could be given in terms of grade placement values. The intercorrelations among the various subtests of the battery and the criterion were computed.

Multiple correlations were run on the matrices for each sex. The  $\bar{R}$ 's are .28 for the boys and .19 for the girls. Three variables were precipitated from the matrix in each case before the maximized cumulative  $\bar{R}$  began to decrease. For the boys it was found that *reading vocabulary*, *spelling*, and *mechanics of grammar* formed the selected test variables making the maximum contribution to the criterion from the variables investigated. The surprise finding, however, was that no test which assayed quantitative thinking or number facility appeared in the precipitation as being important to grade placement deviation! Therefore, it can be concluded that one boy's particular strength in arithmetic ability would not have so much weight for the purpose of grade placement deviation (i.e., retardation and acceleration) as another boy's equal ability in the linguistic area. To put it another way, we might say that while the younger accelerated-boys know slightly more than the older retarded-boys in the fifth grade in all areas (all zero-order r's were positive and low, but statistically significant), their accelerations and retardations are more closely related to linguistic abilities than to quantitative abilities.

For the girls it was found that *spelling*, *reading vocabulary* and *arithmetic fundamentals* formed the selected variables making the maximum contribution to the criterion from the variables investigated. As with the boys, the accelerated younger-girls know slightly more than the retarded older-girls. Again, however, the contribution which any of the specific subject matter knowledges make to Grade Placement Deviations is much too small to be of any practical value in differential diagnosis or predictive counseling.

This study is the first in a series. The writers are now investigating the relation between Grade Placement Deviation and primary scholastic factors at each grade level in order to gain some insight into the dynamics and changing importance of these factors as a child progresses through school.

# Transfer Effects in Spelling

BARRY T. JENSEN AND SHEPARD A. INSEL

It has been argued that objective tests are undesirable because they present incorrect as well as correct information to the examinee. In particular, it has also been stated that multiple-choice spelling tests have a negative effect upon spelling achievement. The study reported here was designed specifically to test the latter theory. The specific hypotheses tested were:

1. Taking a test in which words are spelled incorrectly will negatively affect ability to spell those words.
2. A test in which words appear in context will have a greater positive effect on ability to spell those words than will one in which the words are presented as part of a multiple-choice test.
3. Persons whose spelling ability changes with exposure to a test are less rigid than those whose ability remains constant.

The design was that for a simple transfer study. Each subject was given a pre-test in which he wrote a series of words and this test was repeated as a post-test. The interpolated activity was one of three kinds of spelling recognition tests as indicated below. The designation of the group as *M*, *S*, or *C* indicates the test given to that group of subjects. Group *N* had no interpolated test but spent the time completing the *F-scale* of the Authoritarian Personality Studies. Members of groups *M*, *S*, and *C* completed the *F-scale* on the day before or the day after the one on which the spelling tests were administered.

## The Tests

Test *M* was a four-choice multiple-choice test of fifty items. Each item contained the same word presented in four different spellings, only one of which was correct. The stimulus was a phonetic spelling and a definition

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of each word. The choices of correct spellings were indicated on a separate answer sheet. The test was timed, and the same time limit prevailed for each administration of it.

Test C was a three-choice multiple-choice test of fifty items. Each item contained three different words, two of which were spelled correctly. The subjects' task was to find the word *not* spelled correctly. Of the 150 words in this test, fifty of them were the same as those in Test M (and the same as the words on the pre- and post-test); thirty-three of the latter words were spelled correctly. Separate answer sheets were used.

Test S consisted of fifty sentences. Each sentence contained one of the words used in Test M; in one-third of the sentences this test word was spelled incorrectly. The task of the subjects was to identify each sentence in which there was a misspelled word. Separate answer sheets were used here, too.

The pre- and post-test was designated as Test R. It was a recall test of fifty items. The stimulus was the same as in Test M (a definition and phonetic spelling of each word). The task was to print the correct spelling in appropriate spaces on a separate answer sheet. The coefficient of reliability of this test (split-half, corrected with the Spearman-Brown Prophecy Formula), based on a different but similar population, was .87. A test of the same form and with many of the same words and administered to a similar population had a coefficient of reliability of .90. It has previously been shown that improvement on this latter test from one trial to another some months later was not significantly related to intelligence (4).

## Procedure

The subjects in this study consisted of all available senior English students at Menlo-Atherton High School in Menlo Park, California. The N's of the various groups were different. Group M had 105 members who completed the entire series of tests. Group C consisted of thirty-eight persons and Group S consisted of seventy-one subjects. Group N contained only twenty-one persons.

The mean score on the initial administration of Test R was computed for each group. To test hypothesis one, the pre- and post-test scores were compared for groups M and C. For group C a comparison was also made of the change in score on the words spelled correctly and the words not spelled correctly on the interpolated test. To test hypothesis two, the gain of group S was compared to that for the other groups. The *t-test* was used to test the significances of the differences of means. A Pearson product-moment coefficient of correlation was computed between the variables of score on the *F-scale* and change in raw score on the spelling test (the sign was disregarded for the spelling test).

## Results

Initial differences among the groups can be seen. The pre-test means were: Group *M*, 26.52; Group *C*, 31.05; Group *S*, 32.04; and Group *N*, 16.90. The differences were not tested for significance. Group *N* had such a relatively low initial score that it was not considered as an adequate control; data regarding this latter group are reported, however.

TABLE I  
Mean Gains of Groups and Differences Among Them

Group	<i>n</i>	Mean Gain	Amount Mean Gain Exceeded That of Group		
			<i>M</i>	<i>C</i>	<i>N</i>
<i>S</i>	71	4.92*	1.25	2.21**	2.97
<i>M</i>	105	3.67*	..	0.96	1.72
<i>C</i>	38	2.71*	..	..	0.76
<i>N</i>	21	1.95	..	..	..

\* Significant at the 1 per cent level. \*\*Significant at the 5 per cent level.

The mean gain of each group and the differences between groups in this respect are reported in Table I. It can be noted that every group gained in mean score and that in all except Group *N* the gain was significant beyond the one per cent level. The difference between gains made by groups *S* and *C* was statistically significant beyond the five per cent level (using a one-tailed test).

In terms of percentage improvement from pre-test to post-test, greater gain was shown by members of group *C* on the seventeen words spelled incorrectly on the interpolated test than on the thirty-three words spelled correctly (9.5 per cent and 7.7 per cent, respectively). In terms of raw-score gain the greater gain was shown on words which were spelled correctly (1.63 as compared with 1.13). Neither difference was statistically significant.

The coefficient of correlation between score on the *F-scale* and change in spelling test score was -.03, obviously not significantly different from zero.

## Discussion

Three of the four groups had some kind of intensive spelling activity during the time between a pre-test and a post-test involving the words studied. All three groups showed a statistically significant gain in ability to spell those words. The group which did not have an interpolated spelling activity did not show a gain, nor was the difference between the gain made by this group and the others probably a real difference. The small *N* in what might have been the control group probably is one reason some of the differences involving this group were not statistically significant. None of

the hypotheses was supported, although the differences related to hypothesis two were in the expected direction and one was statistically significant.

The differences reported here suggest that some kind of spelling test is more beneficial than no directed spelling activity in increasing spelling competency. Data do not support the claim that one kind of test is better or worse than another, although Insel (3) has reported that subjects were more able to correctly identify misspelled words when found in the context of a sentence than when they were in isolation in a multiple-choice setting.

The claim has been made that a multiple-choice spelling test will have a negative effect upon spelling ability. Gains were made by all groups taking an intervening test, even on those words spelled incorrectly and to which the examinee's attention was directed. Identifying the incorrectly-spelled word may have improved the ability to spell that word—an ill-defined trace may have been sharpened by eliminating the conflict in a person not sure of the correct spelling (this assumes that the person was familiar enough with the word to recognize that it didn't look right). This conjecture is consistent with the comments of some of the subjects to the effect that seeing the word spelled incorrectly helped them to realize the correct spelling. In the multiple-choice test the examinee was given the opportunity to recognize the word and to differentiate the correct spelling from other spellings; such could strengthen his knowledge of the correct form.

The test in which the words were included in a sentence may have given the subject the added benefit of establishing a contextual set which is consistent with realistic experience. These words have obviously been seen by the subjects in their past readings, and in context the structure of the word may be more significantly differentiated.

These data are consistent with the point of view that frequency alone does not insure learning. The context of the practice affects what is learned; this context includes the pupil's knowledge of what he is looking for—incorrect spellings. Thus, a test of the kind used here provides negative practice.

This is not to imply that the findings would be the same with regard to all levels of spelling ability. For instance, if a pupil had had no experience with a word it is doubtful that he could learn to spell it simply by exposure to a wrong spelling. But if he was shown all possible misspellings of the word and told that they were misspellings he probably could figure out the correct spelling, as has been demonstrated in regard to concept formation (2).

## Summary and Conclusions

Pupils in high school were given a fifty-item spelling test in which they wrote the word which was spelled phonetically and defined for them. This test was given at the beginning of a class period and at the end of the same

period. In the interim three of the groups each took a spelling test of a different sort. A fourth group had no direct spelling activity during the time between pre- and post-tests. All groups with spelling activity interpolated showed a gain in ability to spell those fifty words, even though the experience had involved seeing some of the words spelled incorrectly. There was one statistically significant difference between groups in regard to the gain made. The *F-scale*, designed to measure rigidity in personality, was used to identify the relationship between change in spelling score and this personality variable. The resulting correlation coefficient indicated no relationship.

In conclusion it can be said that, in terms of immediate effect on spelling ability (improvement), any direct spelling experience of the kinds presented here (a test) is better than no such experience and that there has been shown to be no negative effect of seeing a word spelled incorrectly.

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#### The Editors Say . . . . . (*Continued from Page 194*)

than in the past to such questions as, Why do people teach? What aspects of typical teaching situations are most frustrating to persons who like to teach? What do parents want the school to do for their children? What can schools actually do for children under given situations? What personnel procedures should be followed in various types of situations in order to secure and keep effective teachers?

These are not new questions. Work is already in progress on aspects of some of them. It is hoped that California Educational researchers will not only do their share, but that they will keep the profession informed of the progress. The *California Journal of Educational Research* will do its part to help realize the latter hope.

# Doctoral Dissertations in Education

## Accepted by California Universities, 1954-55

This year the California Advisory Council on Educational Research has decided that only a report of doctoral dissertations should be published in the *Journal*. Masters theses will be reported in a separate *CTA Research Bulletin*. The studies in the following classified list were reported by Stanford University, University of California at Berkeley, University of California at Los Angeles, and University of Southern California. They were completed during the 1954-55 school year.

Dissertations may be borrowed from these university libraries by inter-library loan through a library (school system, public college or university, city, county, or state).

The classification scheme is set forth below. An effort has been made to give complete cross references for each dissertation. The dissertations have been numbered for easier reference. It is hoped that this report will be a useful tool for those interested in recent educational research in California.

### CLASSIFICATION SCHEME

#### THEORY

Educational Philosophy, Principles and Trends  
Historical and Comparative Education

#### Subject Matter Studies (Cont'd)

Health and Safety  
Language Arts  
Mathematics and Science  
Physical Education  
Social Studies  
Other Subject Matter

#### ADMINISTRATION

Organization  
Finance  
Buildings, Equipment, Transportation  
Personnel Practices and Teacher Status  
School and Community Relations  
Legislation, Law

#### Teaching Methods and Aids

#### RELATED SCIENCES

Educational Psychology  
Educational Sociology  
Growth and Development  
Measurement and Evaluation

#### GUIDANCE AND COUNSELING

#### TEACHER EDUCATION AND PROFESSIONAL STANDARDS

CURRICULUM AND METHODS  
Curriculum and Extra Curricular Activities, Extended Services  
Subject Matter Studies  
Art and Music  
Business Education

#### ELEMENTARY EDUCATION

#### SECONDARY EDUCATION

#### HIGHER EDUCATION

#### EXCEPTIONAL CHILDREN

#### VOCATIONAL AND INDUSTRIAL EDUCATION

#### ADULT EDUCATION

#### OTHER

## THEORY

### Educational Philosophy, Principles, and Trends

1. Frostig, Marianne. *Clinical Approaches to Education.* U.S.C.
2. Roth, Julian B. *The Relationship of Scholasticism and Experimentalism in Education.* Stanford.
3. Snodgrass, Robert L. *Relative Effects of Chronological Recency and of Logical Argument Upon Expressed Preferences for Educational Practices.* Stanford.
4. Winkelhake, Claude Arthur. *The Foundations of Architectonic Design in Modern Education.* Stanford.

See also numbers 18, 37, 121 and 126.

### Historical and Comparative Education

5. Al-Jalili, Abdul Razzak. *A Study of Public Education in Iraq, with Suggestions for Its Reorganization.* U.S.C.
6. Calimquim, Aurora. *History of Elementary Education in the Philippines, 1898-1941.* U.C.B.
7. Croy, Hazel Miller. *A History of Education in San Bernardino During the Mormon Period.* U.C.L.A.
8. Ismail, Suad. *A Study of Basic Factors in Curriculum Development in the Public Schools of Iraq.* U.C.B.
9. Poe, Paul Alvin. *The Role of the American Federation of Labor in Dealing with the Policies of American Public Education from 1925 to 1955.* U.S.C.
10. Solis, Miquela M. *Organization and Administration of Elementary Teacher Education in the Philippines.* Stanford.
11. Walker, Bernal Ernest. *Public Secondary Education in Alberta: Organization and Curriculum, 1898-1951.* Stanford.

See also numbers 16, 25, 62 and 104.

## ADMINISTRATION

### Organization

12. Cook, Owen. *A Study of Duties, Forms, Procedures, Equipment, Time Allotments for Clerical Personnel in High School Offices.* U.C.B.
13. d'Artenay, Francois C. *Economies in Mechanical Systems of Elementary Schools.* Stanford.
14. Freese, Theron. *A Study of the Position of Assistant Superintendent in Charge of Instruction—Its History, Status, and Functions.* U.S.C.
15. Johnson, De Wayne. *An Historical Analysis of the Criticisms Concerning Teaching About the United Nations Educational, Social, and Cultural Organization in Los Angeles City Schools.* U.C.L.A.
16. Magee, Lawrence Thomas. *Historical Developments Affecting the Administration of the Office of the Los Angeles Superintendent of Schools.* U.S.C.
17. Reeves, Robert English. *A Study of Administrative Controls with Emphasis on Financial Controls of School Food Service Programs in Selected Cities of the United States.* U.S.C.

18. Taylor, Harris A. *An Analysis of Doctoral Research Problems in School Administration.* Stanford.

See also numbers 32, 77, 79, 81, 112, 115, 116, 117, 128 and 142.

### Finance

19. Nielsen, Paul. *Application of a Formula of Necessity and Cost Factors in Operating Small High Schools in California.* U.S.C.
20. Simpson, Wayne Albert. *An Analysis of the First Mandatory Annual External Post-Audit of the Books and Records of School Districts in California.* U.S.C.
21. Sparks, Richard. *The Basis of Public School Accounting Practices in the United States.* U.C.B.
22. Wolfson, Leo. *The Financing of California Public Junior Colleges.* U.S.C.
23. Woodington, Donald D. *Federal Public Housing in Relation to Certain Needs and Financial Ability of the Richmond School District.* U.C.B.

See also numbers 13, 17, 38, 77, 81 and 142.

### Buildings, Equipment, Transportation

24. Fickel, Richard R. *Economies in School Construction.* Stanford.
25. Gowin, Lawrence E. *Prefabricated Primary School Buildings in Great Britain.* U.C.B.
26. McKee, Robert Lester. *Elementary School Classroom Furniture and Built-in Equipment.* Stanford.
27. Peters, Jon Stanley. *Criteria for School Plant Operations.* Stanford.
28. Schneider, Raymond Clinton. *Factors Affecting School Sites.* Stanford.
- See also number 129.

### Personnel Practices and Teacher Status

29. Fishburn, Clarence Edwin. *Teacher Role Perception in the Secondary Schools of One Community.* Stanford.
30. Galluzzo, A. Neil. *Administration of Classified Personnel in California.* U.S.C.
31. Lambert, Phillip. *Interaction Between Authoritarian and Non-authoritarian Principals and Teachers.* U.C.B.
32. Shellhammer, Thomas A. *Work Week of Public Secondary School Teachers in California.* Stanford.
33. Varner, Leo Parker. *The Induction of Public School Teachers.* U.S.C.

See also number 72.

**School and Community Relations**

See numbers 29, 105, 113 and 139.

**Legislation, Law**

34. Butterbaugh, Wayne LaVerne. *Analysis of the Legal Aspects of Privileged Communication in the Public School System.* U.S.C.
35. Corbally, John. *A Study of the Critical Elements of School Board-Community Relationships.* U.C.B.
36. Crossan, Robert Davies. *Legislation Proposed to the State Legislature of California Relative to Public Education from 1941 to 1953.* U.S.C.
37. Ellerman, Raymond Frederick. *A Historical Study of California Supreme Court Decisions, 1850-1950, with Respect to Public School Administration.* U.S.C.
38. Hawk, Alexander Bruce. *A Study of the California School Bond Liability Laws and Proposed Improvements.* U.S.C.
39. Scott, Alton Everett. *An Analysis of Obsolescence in the California Education Code.* U.S.C.

See also numbers 105 and 136.

**RELATED SCIENCES****Educational Psychology**

40. Aron, Harry. *Emotional Disturbance and a Response Determiner in Psychological Tests of the Draw-a-Man Type.* U.C.B.
41. Babcock, Hiram J. *An Analysis of Problem Solving in Arithmetic.* U.C.B.
42. Barnard, Mildred Electra Bennett. *Procedural Hypotheses in Teaching Deducible from Current Learning Theory.* Stanford.
43. Collins, Charles Cornelius. *The Relationship of Breadth of Academic Interest to Academic Achievement and Academic Aptitude.* Stanford.
44. Gerbner, George. *Toward a Theory of Communication—An Exploratory Study of Approaches and Perspectives Preliminary to the Consideration of a Theory of Human Communication.* U.S.C.
45. Lewis, Vance DeSpain. *A Diagnostic Study of Certain Scholastic Factors in the Success or Non-success of Engineering Students.* U.S.C.
46. Nelson, Gaylord. *Differences Between Ten- and Fifteen-Year-Old Boys in Motor Learning and Specificity of Transfer.* U.C.B.
47. Reeves, William N. *An Exploratory Study of Two Sets of Learning Principles Derived from the Learning Theories of Guthrie and Wheeler as They Relate to the Development of Instrumental Musicianship.* U.S.C.
48. Scott, Lloyd. *Relationship Between Selected Characteristics of Children and Their Television Viewing.* U.C.B.
49. Silberman, Harry F. *A Study of Certain Conditions Under Which a Success Aspiration Is Learned.* U.C.L.A.

50. Stroup, Francis E. *Relationship Between Measurements of the Field of Motion Perception and Basketball Ability in College Men.* U.S.C.
51. Wood, Gertrude S. *An Evaluative Study of the Child Study Program in Los Angeles County.* U.S.C.

See also numbers 60, 66, 92, 94, 110, 111 and 135.

### Educational Sociology

52. Blackman, Evelyn. *Opinions Regarding Health as Factors in Social Acceptability Among Seventh Grade Students.* U.C.B.
53. Bracy, Jesse. *Public Secondary School Placement as a Factor in the Rehabilitation of California Youth Authority Parolees.* U.C.B.
54. Corona, Bert. *A Study of Adjustment and Interpersonal Relations of Adolescents of Mexican Descent.* U.C.B.
55. Gates, Gunther. *A Study of Achievement and Adjustment of German-Jewish Refugee Students in American Public High Schools of the San Francisco Bay Area.* U.C.B.
56. Insel, Shepard Alvin. *Evaluations of Anti-Social Behavior by Delinquents.* Stanford.
57. Juola, Arvo E. *The Effects of Training on Performance in Leaderless Group Discussions.* U.C.B.

See also numbers 23, 51, 90, 95, 127, 133, 137, 140 and 141.

### Growth and Development

58. Burks, Harold Francis. *A Study of the Organic Basis for Behavior Deviations in School Children.* U.S.C.
59. Rudloff, George Edward. *Effect of Vitamin and Mineral Supplementation on Physical Achievement.* Stanford.
60. Russell, Robert D. *The Relationship Between a Vitamin-Mineral Supplement and Classroom Learning.* Stanford.
61. Sagl, Helen. *Ten Children Growing Up. (A Documentary Record of Behavior.)* Stanford.

See also numbers 51 and 99.

### Measurement and Evaluation

62. Al-Zobaie, Abdul Jalil. *Intelligence Test Development with Special Reference to a Test for Use in Iraq.* U.S.C.
63. Batmale, Louis F. *Achievement in College of Students Graduated from High School on the Basis of Performance on the General Educational Development Tests.* U.C.B.
64. Bentley, Richard Raymond. *A Critical Comparison of Certain Music Aptitude Tests.* U.S.C.

65. Gustuson, Donald I. *A Factor-Analysis Study and Validation of the Brown Box Test as an Index of Physical Aptitude and as a Determinant for Homogeneous Grouping of Secondary School Boys in Physical Education.* U.C.L.A.
66. Macy, Helen Kershner. *Some Psychological Measurements for School-Readiness in the Child.* U.S.C.
67. Metfessel, Newton S. *An Experimental Analysis of Response Sets in Forced-Choice Test Performance.* U.S.C.

See also numbers 71, 72 and 132.

### TEACHER EDUCATION AND PROFESSIONAL STANDARDS

68. Boortz, Nathan H. *Costs of Educating School Superintendents, Lawyers, Dentists and Physicians.* Stanford.
69. Gavin, Sister, Rosemarie Julie. *Training Teachers of Secondary School English in Catholic Colleges for Women.* Stanford.
70. Hoyt, Mildred D. *Factors Which Influence Pre-Service Teachers' Choices of Elementary or Secondary Division.* Stanford.
71. Lapp, Paul. *Procedures for Appraising Selected Intern Learnings.* U.C.B.
72. Lyman, Robert J. *Evaluation of a Professional Growth Program for Teachers.* Stanford.
73. Merritt, Edith. *Critical Competences for Elementary Teachers in Selected Curriculum Areas.* Stanford.
74. Staley, Edwin John. *Analysis of Opinions of State Department, Teacher Education, and Public School Personnel Concerned with Student Teaching in Physical Education.* U.S.C.
75. Tabor, Malcolm Leonard. *A Survey and Evaluation of Selected Student Teaching Programs in Music Education.* U.S.C.
76. Todd, Robert. *A Study of Changes in Specific Teacher Behaviors Concurrent with Participation in a Curriculum Committee.* U.C.B.

See also numbers 10, 85, 119 and 131.

### CURRICULUM AND METHODS

#### Curriculum and Extra Curricular Activities, Extended Services

77. Carlson, Gordon. *The Financing of Interscholastic Athletics in Selected High Schools of California.* U.C.B.
78. Clark, Edwin Clarence. *The Upward or Outward Extension of Education in Burbank, California.* Stanford.
79. Floyd, Earl Howard. *The Organization and Administration of Curriculum Programs in Selected City School Systems.* U.S.C.
80. Imbler, Ray M. *The Teaching of Moral and Spiritual Values in California Public Schools.* Stanford.
81. Justice, William Joseph. *The Administration of Student Body Finances in the Public Junior Colleges of California.* Stanford.

82. Voiard, Boyer Warren. *Librarian Participation in High School Programs of Curriculum Improvement.* U.S.C.

See also numbers 8, 11, 14, 17, 51, 76, 114, 124 and 128.

## SUBJECT MATTER STUDIES

### Art and Music

83. Brainard, Amy Gamble. *An Analysis of Art Programs in Selected Junior High Schools in the United States.* U.S.C.

84. Herrold, Clifford H. *The Use of Art Education in Promoting International Understanding.* Stanford.

85. Lemons, Jack Otho. *Evaluative Criteria for Music Education Curricula.* U.S.C.

See also numbers 47, 64 and 75.

### Business Education

86. Briggs, James R. *Personal-Use Values in Bookkeeping.* Stanford.

87. Erickson, Lawrence W. *Selected Business Education Practices in the Public Senior High Schools of California.* U.C.L.A.

88. Himstreet, William Charles. *A Study of Business Education in the Public Junior Colleges of California.* U.S.C.

See also number 118.

### Health and Safety

89. Girard, Marston A. *The Health Needs of Secondary School Students.* Stanford.

90. Widel, Denzil. *Seventh and Eighth Grade Students' Reactions to Instruction Concerning Effects of Narcotics.* U.C.B.

See also number 99.

### Language Arts

91. Brown, Donald P. *Auditing as the Primary Language Ability.* Stanford.

92. Giguette, Eulalia Mary. *A Follow-up Study of the Remedial Reading Clinic of the University of Southern California.* U.S.C.

93. Gordon, Erwin. *A Method of Teaching Conversational Chinese to High School Students.* U.C.B.

94. Kasdon, Lawrence M. *Some Characteristics of Highly Competent Readers Among College Freshmen.* Stanford.

95. Roster, Arlene Adele. *Reading Interests of Children of Upper, Middle, and Lower Socioeconomic Class Groups.* U.S.C.

96. Scofield, Alice Gill. *The Relationship Between Some Methods of Teaching Language Arts as Advocated in Methods Courses and as Practiced in the Classroom.* Stanford.

See also number 69.

**Mathematics and Science**

97. Gega, Peter Christopher. *College Courses in Elementary School Science and Their Relation to Teaching Problems.* U.S.C.

See also numbers 41 and 101.

**Physical Education**

98. Adams, Andrew S. *Provisions for Students: Preference Activities in a Modern Physical Education Program.* U.C.B.
99. Cleaveland, Henry G. *The Determination of the Center of Gravity of Structural-Functional Segments of the Human Body.* U.C.L.A.
100. Whitaker, Patricia Helen. *A Comparative Study of Teaching Methods in Physical Education.* U.S.C.

See also numbers 50, 65, 74 and 77.

**Social Studies**

101. Douglass, Malcolm P. *Interrelationships Between Man and the Natural Environment for Use in the Geographic Strand of the Social Studies Curriculum.* Stanford.
102. Serviss, Trevor K. *What America Means to High School Seniors.* Stanford.

See also numbers 15 and 84.

**Other Subject Matter**

103. Gross, Robert Dean. *A Study of Family-Life Education and Work Experience Programs in Seventh-Day Adventist Academies in the United States.* U.C.L.A.
104. Porch, Louise Watson. *Home Economics: Trends and Developments, 1909-1952.* Stanford.

**Teaching Methods and Aids**

105. Odell, William. *Teacher Opinions and Practices Concerning the Use of Sponsored Pamphlets Containing Propaganda.* U.C.B.
106. Sherman, Mendel. *The Feasibility of Using Television for Evaluating Instructional Motion Pictures.* U.S.C.
107. Vergis, John Perry. *An Experiment Designed to Determine the Effectiveness of Projected 3-D Still Pictures.* U.S.C.

See also numbers 48, 73, 96, 97 and 100.

**GUIDANCE AND COUNSELING**

108. Coombs, Robert Warren. *The Appraisal of Personal Problems of High School Seniors.* U.S.C.
109. Johnson, Alan W. *Administration of Student Personnel Programs in Selected California State Colleges.* U.C.L.A.
110. Revie, Virgil. *The Effects of Psychological Case Work on the Teacher's Concept of the Pupil.* U.C.B.

111. Smith, Lester E. *Some Implications of the Theory of Client-Centered Therapy for Student Personnel Work.* Stanford.

See also numbers 51, 54, 55, 56, 58, 60, 61, 89, 112, 123, 125, 127, 134 and 138.

### ELEMENTARY EDUCATION

See numbers 10, 13, 25, 26, 51, 66, 70 and 73.

### SECONDARY EDUCATION

112. Arciniega, Ella Anna Gemmell. *The Relation Between Selected Administrative Policies and Practices and Dropout Rates in Public High Schools.* U.S.C.
113. Ackley, Philip Jackson. *Educational Implications Based on Beginning Employee Qualifications as Sought by Employers in One California County.* U.S.C.
114. Herzel, Abraham. *A Critical Analysis of a High School Curriculum and Its Effects on Slow-Learning Students.* U.C.L.A.
115. Jones, Henry W. *The Principal and the Principalship of Small High Schools in California.* U.C.L.A.
116. Normington, Louis W. *Block-time Classes in Junior High Schools in California.* U.C.B.
117. Walters, Thomas W. *The Job of the High School Principal as Perceived by California City Superintendents.* Stanford.

See also numbers 11, 12, 19, 29, 32, 53, 55, 63, 65, 69, 70, 77, 78, 82, 83, 87, 89, 102, 108 and 136.

### HIGHER EDUCATION

118. Aberle, John W. *An Evaluation of a College's Curriculum in Business.* Stanford.
119. Covey, Alan Dale. *Evaluation of College Libraries for Accreditation Purposes.* Stanford.
120. Edlefsen, Clisby T. *A Junior College Survey of Twin Falls County, Idaho.* Stanford.
121. Engle, Gale W. *William Rainey Harper's Conception of the Functions and Structures of Higher Education.* Stanford.
122. Harms, Mary Terwilliger. *Professional Education in University Schools of Nursing.* Stanford.
123. Harris, Kenneth E. *A Five Year Occupational History of the 1947 Class of Stanford Graduates.* Stanford.
124. Huber, Frederick Roland. *The Student Activity Program in the Junior Colleges of California.* U.S.C.
125. Johnson, John Edward. *Administrative Implications of the Nonreturning Junior College Student.* U.S.C.
126. Lieuallen, Roy E. *The Jeffersonian and Jacksonian Conceptions in Higher Education.* Stanford.
127. Matson, Jane Elizabeth. *Characteristics of Students Who Withdraw from a Public Junior College.* Stanford.

128. Rockwell, Robert Clark. *An Analysis of the Organization and Administration of Certain Functions and Curricular Practices in California Public Junior Colleges.* U.S.C.
129. Stone, Robert Francis. *A Determination and Analysis of the Degree of Utilization of California State College Instructional Space.* U.S.C.

See also numbers 22, 45, 50, 63, 78, 81, 88, 109 and 137.

### EXCEPTIONAL CHILDREN

130. Griffiths, Ciwa. *The Utilization of Individual Hearing Aids with Young Deaf Children in a Normal Environment.* U.S.C.
131. Pittenger, Priscilla. *A Functional Program for Preparing Teachers of the Deaf.* Stanford.

See also number 114.

### VOCATIONAL AND INDUSTRIAL EDUCATION

132. Bursch, Charles W. II. *Utility of the Kuder Preference Record in Selection of Students for Vocational Agriculture.* Stanford.
133. Evraiff, William. *Characteristics of Continuation School Students in Selected California Communities.* Stanford.
134. Mitchell, Douglas Albert. *Educational-Vocational Counseling for the Public at Stanford University.* Stanford.
135. Obst, Frances M. *A Study of Selected Psychometric Characteristics of Home Economics and Non-Home Economics Women of the University of California, Los Angeles.* U.C.L.A.
136. Ross, John Griffin. *The Legal Aspects of Work Experience Programs in California High Schools.* U.S.C.
137. Samson, Ruth Dawson. *A Study of Community Occupational Needs to Establish Criteria for Curriculum Study at the College Level.* U.S.C.

See also numbers 78, 113 and 122.

### ADULT EDUCATION

138. Dirks, Henry Bertram. *Dropouts in the Evening Adult Schools.* U.S.C.
139. Mezirow, Jack D. *The Coordinating Council Movement in Los Angeles County and Its Implications for Adult Education.* U.C.L.A.
140. Ride, Dale. *Determination of the Educational Desires of the Aging and Recommendations for More Adequately Involving Them in the Santa Monica Adult Education Program.* U.C.L.A.

See also numbers 78 and 134.

### OTHER

141. Feller, Dan. *An Introductory Study of Related Factors Pertaining to the Education, Welfare, and Employment of Minors in Motion Pictures in the Los Angeles Area.* U.C.L.A.
142. Thompson, Byron Eugene. *A History of the California Association of Public School Business Officials.* U.S.C.

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## **Book Reviews**

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### **CLINICAL VERSUS STATISTICAL PREDICTION**

**A Theoretical Analysis and a Review of the Evidence,**  
by Paul E. Meehl

Minneapolis: University of Minnesota Press, 1954. 150 pages.

In the preface the author states, "There is no convincing reason to assume that explicitly formalized mathematical rules and the clinician's creativity are equally suited for any given kind of task, or that their comparative effectiveness is the same for different tasks." The book is essentially an examination, elaboration, and documentation of this statement. The clinician referred to by the author is a psychologist or psychiatrist. However, the basic principles with which the volume is concerned apply to many situations outside of these specialties. For this reason, the book should prove of interest and value to educators.

The major question considered can be loosely stated as follows: When a prediction is made about an individual case, is some type of creative act performed by the predictor? If not, then a formal application of general laws or principles to the known facts should give as accurate or better predictions than can be made by the use of individual judgment—regardless of the training, experience, and intelligence of the individual. While the predictions considered by the author involve prognosis, diagnosis, and choice of treatment in the handling of psychologically disturbed persons, it is obvious that the choice of teaching methods, the counseling of students, and the planning of educational experience for individual children, also involve the type of prediction being discussed.

The author gives arguments both for and against the existence of an individual or "artistic" aspect of clinical prediction. The discussion on the whole indicates that a middle ground that does not ignore the value of formal measurements and the application of known psychological laws on the one hand, and which does not rule out the use of subjective judgment of the practitioner on the other, is the only defensible one.

The book is deceptively simple in appearance. It is easy to read and uncomplicated in outline; but the generalizations given in this review do not indicate the depth of its probing into some of the bases for psychological (and educational) practices. If it is read, it should be read with great care. It will be well worth the trouble.

## WHAT DO THE LEARN — ABOUT EDUCATION?

**Published for the Metropolitan School Study Council**

By the Institute of Administrative Research, 525 West 120th Street, New York 27, New York, September, 1955. 34 pages.

The subtitle of this booklet is, "Practices Used in Public Schools to Teach Students About Educational Provisions and Issues." It represents an attempt to change the conditions described by the editor in the foreword, when he says, ". . . unseemingly modesty by educators has resulted in the teaching about local government without mention of boards of education, covering the history of New England with more time given to witch-burning than to the establishment of schools to resist 'the old deluder', comparing French and American cultures without giving the lycee as much emphasis as tourist posters, and discussing careers with children as though teaching were not something one could proudly choose to do as a life-work."

The four sections of the publication deal with opportunities to teach about education in the various levels of schools, beginning with senior high school and progressing through junior high and intermediate grades to primary classes. The booklet concludes with a short but varied and well-chosen bibliography. A list of four items available in quantity for student use is particularly valuable.

## MENTAL HEALTH IN MODERN EDUCATION

*The Fifty-Fourth Yearbook of the National Society for the Study of Education, Part II.* Chicago: The University of Chicago Press, 1955. 398 pages.

This volume is dedicated to the premise expressed in its first sentence, "The attainment of mental health is a crucial problem at the present time." The role of education in general and of teachers in particular in the attainment of mental health is considered from many angles.

The first section of the volume is devoted to the history and present status of the mental-health movement. The second deals with conditions affecting mental health in the classroom. Problems and practices related to mental health at different educational levels and the personal and professional development of the teacher are considered in Sections Three and Four, respectively. The fifth and final section consists of a single chapter written by the Yearbook Committee on the implications of the *Yearbook* for the improvement of mental health in our schools.

In spite of the overwhelming emphasis placed upon the value of mental health, the *Yearbook* seems unusually well-balanced and realistic in its treatment of the subject. It is emphasized at the beginning that the teacher

is a member of a team which includes administrators, psychological specialists, and parents. It is clearly recognized that teachers are not psychotherapists and that therapy is not the primary function of education. This realistic approach is continued throughout the book.

The importance of combining concern for the mental health of teachers with concern for the mental health of students is also stressed. It is stated that, "In general, teachers need to relax and avoid overfatigue. They should give more attention to proper nutrition and other health habits which foster mental health and learn to live within their energy resources."

This *Yearbook* can be heartily recommended to all teachers, administrators, and other educational workers. The chapter on the evaluation of a mental-health program should even prove of much value to laymen—particularly members of governing boards.

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The Association for Supervision and Curriculum Development has just issued a pamphlet titled *Crucial Problems of Today's Schools*. It consists of three addresses with a foreword by the Executive Secretary of the Association. The addressees are by G. Bromley Oxnam, Vivian T. Thayer, and Hollis L. Caswell, respectively. All three indicate that the question of values is the fundamental one. The pamphlet may be obtained from the Association, 1201 Sixteenth Street, N. W., Washington, D. C. for one dollar.

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Arthur P. Coladarci, Associate Professor at Stanford University and his institution's representative on the California Advisory Council on Educational Research, was a guest speaker at three of the Alberta Teachers' Association's seventeen local conventions during October. Dr. Coladarci spoke at the Two Hills, St. Paul, and Lethbridge conventions.

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"Citizens Study Salary Policy" is the title of an article appearing in the September, 1955, issue of *The School Executive*. The author is Dr. William H. Stegeman, Director of Research for the San Diego City Schools. The activities and accomplishments of the Citizens' Advisory Committee on Salary Policy in San Diego are described. A set of the policies developed by this committee may be obtained by writing to the Research Department of the San Diego Schools.

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Fred T. Tyler, Professor of Education at the University of California at Berkeley, spoke at the First and Second Edmonton District Conferences of the Alberta Teachers' Association during October. Dr. Tyler received his early education in Alberta and has been actively identified with the education profession in that province.

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